

# SCIENTIFIC AND PROFESSIONAL STAFF

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## AREAS OF INTEREST AND EXPERTISE

V. Radeka, Division Head

25 Scientists and Professionals; 48 total including technical and administrative

W. Chen <sup>1</sup>	Designing and processing for position sensitive silicon detectors.
G. De Geronimo	Low noise monolithic integrated circuits.
R.P. Di Nardo	Electrical and optical coatings, detector fabrication, and specialized materials processing; training coordination & quality assurance.
J. Fried	Experiment control and data acquisition system design.
J.A. Harder	High speed electronics, monolithic circuits, analog and digital system design.
A.T. Hrisoho <sup>2</sup>	Visiting Senior Scientist: signal processing and noise in physical measurements; detectors and electronics.
S.S. Junnarkar	Signal processing electronics, high speed data acquisition.
A. Kandasamy	Monolithic circuits, CAD, testing; design automation.
J.A. Kierstead	Radiation effects in optical and semiconductor material and devices.
Z. Li	Fabrication methodology for position sensitive silicon detectors; physics of detector grade material; device physics and radiation hardness
D. Makowiecki	Detector grade material; device physics; radiation hardness.
J.A. Mead	Signal processing electronics and low background counting systems.
P. O'Connor	Monolithic circuits, signal processing electronics, semiconductor device physics.
S. Qian	Design and development of high-precision optical metrology instrumentation.
V. Radeka	Signal processing and noise in physical measurements; detectors and electronics.
S. Rankowitz	Systems, electronics, and design automation.
P. Rehak	Physics of particle and radiation detectors; semiconductor detectors.

S. Rescia	Signal processing and noise in physical measurements; detectors and electronics.
N.A. Schaknowski	Development of high resolution, gas-filled, radiation detectors and ultra-high vacuum systems.
G.C. Smith	Physics of and electronics for advanced ionization detectors; applications of such detectors to particle physics, solid state physics, and biology.
T. Srinivasan-Rao	Short pulse, high power, IR, visible and UV lasers, laser driven photocathodes for electron gun and switching applications, electro-optic sampling and generation of coherent short pulse XUV, x-ray radiation.
F.W. Stubblefield	Multiprocessor operating systems, high-speed data acquisition electronics and computer interfaces, medical electronics for flow microfluorometry.
P.Z. Takacs	Optical design and testing; figure and finish metrology of grazing incidence optical components; scattering of x-rays from smooth surfaces and its relation to surface topography.
T.Y.F. Tsang	Ultrafast laser spectroscopy; high-intensity laser-matter interaction; surface-enhanced spectroscopy; nonlinear optics; fiber optics; optical detectors for high energy physics.
J.B. Warren	Analytical electron microscopy, including SEM, EDX, microdiffraction, and computer simulation of crystal defect images, fabrication of microstructures.
B. Yu	Physics of and electronics for advanced ionization detectors; applications of such detectors to particle physics, solid state physics and biology.
Q. Zhao	Design and testing of S band RF injectors; electron beam diagnostics.

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<sup>1</sup> Physics Department

<sup>2</sup> Linear Accelerator Laboratory, Orsay, France